

**Claims:**

1. An apparatus for aspirating, irrigating and/or cleansing wounds, comprising
  - 5 a) a fluid flow path, comprising a conformable wound dressing, having a backing layer which is capable of forming a relatively fluid-tight seal or closure over a wound and at least one inlet pipe for connection to a fluid supply tube, which passes through and/or under the wound-facing face, and
  - 10 and at least one outlet pipe for connection to a fluid offtake tube, which passes through and/or under the wound-facing face, the point at which the or each inlet pipe and the or each outlet pipe passes through and/or under the wound-facing face forming a relatively fluid-tight seal or closure over the wound;
  - 15 b) a fluid reservoir connected by a fluid supply tube to an inlet pipe via optional means for supply flow regulation;
  - c) at least one device for moving fluid through the wound dressing; and
  - d) optionally means for bleeding the flowpath, characterised in that it comprises
  - 20 e) means for supplying physiologically active agents to the wound; and
  - f) means for providing simultaneous aspiration and irrigation of the wound, such that fluid may be supplied to fill the flowpath from the fluid reservoir via the fluid supply tube (optionally via means for supply flow regulation) while fluid is aspirated by a device through the fluid offtake tube (optionally or as necessary via means for aspirate flow regulation).
2. An apparatus according to claim 1, characterised in that the means for supplying physiologically active agents to the wound comprises the fluid reservoir containing physiologically active components in therapeutically active amounts to promote wound healing.
- 30 3. An apparatus according to claim 1, characterised in that the physiologically active agents for supply to the wound are autologous, allogeneic and xenogeneic blood or blood products, platelet lysates, plasma or serum; natural purified protein or recombinant-produced protein growth factors; or

5 natural purified protein or recombinant produced protein cytokines; materials to achieve the delivery of nucleic acid molecules as active genes or gene-containing vectors, as naked molecules, molecules complexed with nucleic acid binding carriers, molecules within liposomes or as virus vectors; or combinations thereof.

10 4. An apparatus according to claim 1, characterised in that the physiologically active agents for supply to the wound are materials that are beneficial in promoting wound healing by removing materials or by regulating, limiting or inhibiting processes deleterious to wound healing from wound exudate which are

15 natural purified protein or recombinant-produced protein proteinase inhibitors;

15 inhibitors of inhibitors of angiogenesis;

antioxidants;

free radical scavengers or degraders;

free radical generators;

or combinations thereof.

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5. An apparatus according to claim 1, characterised in that the physiologically active agents for supply to the wound are natural purified protein or recombinant-produced protein debriding agents.

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6. An apparatus according to claim 1, characterised in that the physiologically active agents for supply to the wound are nutrients for wound cells, antimicrobials, antifungal agents, antibiotics, antibacterial agents, local analgesics/anaesthetics, or combinations thereof.

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7 An apparatus according to claim 1, characterised in that the means for providing simultaneous aspiration and irrigation of the wound often comprises  
a first device for moving fluid through the wound applied to fluid downstream of and away from the wound dressing, in combination with  
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a second device for moving fluid through the wound applied to the irrigant in the fluid supply tube upstream of and towards the wound dressing;

5 means for aspirate flow regulation, connected to a fluid offtake tube, and

means for supply flow regulation, connected to a fluid supply tube;

8. An apparatus according to claim 1, characterised in that the aspirate in the fluid offtake tube downstream of the wound dressing is aspirated into a collection vessel, and the first device acts on fluid from the collection vessel.

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9. An apparatus according to claim 7, characterised in that the first device and/or second device is a fixed throughput device, and the means for providing simultaneous aspiration and irrigation of the wound also comprises at least one of

15 means for supply flow regulation, connected to a fluid supply tube, and means for aspirate flow regulation, connected to a fluid offtake tube.

20 10. An apparatus according to claim 7, characterised in that the first device and/or second device is a variable-throughput device, and the means for providing simultaneous aspiration and irrigation of the wound does not comprise other means for aspirate flow regulation, connected to a fluid offtake tube and/or other means for supply flow regulation, connected to a fluid supply tube.

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11. An apparatus according to claim 1, characterised in that the means for providing simultaneous aspiration and irrigation of the wound comprises means for providing simultaneous aspiration and irrigation of the wound

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a first device for moving fluid through the wound applied to fluid downstream of and away from the wound dressing, and

35 a second device for moving fluid through the wound applied to the irrigant in the fluid supply tube upstream of and towards the wound dressing.

12. An apparatus according to claim 11, characterised in that the first device and/or second device is a fixed throughput device, and the means for providing simultaneous aspiration and irrigation of the wound also comprises at least one of  
5 means for supply flow regulation, connected to a fluid supply tube, and means for aspirate flow regulation, connected to a fluid offtake tube.
13. An apparatus according to claim 11, characterised in that the first device and/or second device is a variable-throughput device, and the  
10 means for providing simultaneous aspiration and irrigation of the wound does not comprise other means for aspirate flow regulation, connected to a fluid offtake tube and/or other means for supply flow regulation, connected to a fluid supply tube.
- 15 14. A method of treating wounds to promote wound healing using the apparatus according to claim 1.